CLAIMS

What is claimed is:

1 1. A medium access control (MAC) layer for a node of a wireless local area network,

2 comprising a hardware layer and a software layer, the hardware layer being configured to

3 perform time-critical tasks and the software layer being configured to perform non-time

4 critical tasks.

1 2. The MAC layer of claim 1 wherein the software layer comprises multiple modules

2 including one or more of a host communication agent, a bridging layer, a network

3 management support module, a SBM-to-TAME conversion module, and a rate estimation

4 module.

1 3. The MAC layer of claim 1 wherein the software layer acts as the source of and the

2 destination of MAC Service Data Units.

1 4. The MAC layer of claim 1 configured for use in an embedded application.

1 5. The MAC layer of claim 1 configured for use in a stand-alone application.

1 6. The MAC layer of claim 1 configured for use in a host-based application.

1 7. The MAC layer of claim 6 wherein all communication layers above the MAC layer are

2 configured to run on a host.

1 8. The MAC layer of claim 1 wherein the software layer is configured as a hierarchical

2 structure in which functional unit blocks for associated elements of the hardware layer

3 communicate with an application layer through respective device drivers and managers.

1 9. The MAC layer of claim 8 wherein the device drivers and managers communicate through

2 a device manager layer.